#### § 60.488

the requirements established by the

[48 FR 48335, Oct. 18, 1983, as amended at 49 FR 22608, May 30, 1984; 65 FR 61763, Oct. 17, 2000; 72 FR 64883, Nov. 16, 2007]

#### § 60.488 Reconstruction.

For the purposes of this subpart:

(a) The cost of the following frequently replaced components of the facility shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital costs that would be required to construct a comparable new facility" under §60.15: pump seals, nuts and bolts, rupture disks, and packings.

(b) Under §60.15, the "fixed capital cost of new components" includes the fixed capital cost of all depreciable components (except components specified in §60.488 (a)) which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2year period following the applicability date for the appropriate subpart. (See the "Applicability and designation of affected facility" section of the appropriate subpart.) For purposes of this paragraph, "commenced" means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

 $[49~{\rm FR}~22608,~{\rm May}~30,~1984]$ 

# § 60.489 List of chemicals produced by affected facilities.

The following chemicals are produced, as intermediates or final products, by process units covered under this subpart. The applicability date for process units producing one or more of these chemicals is January 5, 1981.

CAS No. a	Chemical
105–57–7 75–07–0 107–89–1 60–35–5 103–84–4 64–19–7 108–24–7 67–64–1 75–86–5 75–05–8	Acetal. Acetaldehyde. Acetaldol. Acetamide. Acetanilide. Acetic acid. Acetic acid. Acetic ode. Acetone. Acetone cyanohydrin. Acetonitrile. Acetophenone.

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CAS No. a	Chemical		
75–36–5	Acetyl chloride.		
74–86–2	Acetylene.		
107–02–8	Acrolein.		
79–06–1 79–10–7	Acrylamide. Acrylic acid.		
107–13–1	Acrylonitrile.		
124-04-9	Adipic acid.		
111-69-3	Adiponitrile.		
(b)	Alkyl naphthalenes.		
107–18–6 107–05–1	Allyl alcohol.		
1321–11–5	Allyl chloride. Aminobenzoic acid.		
111–41–1	Aminoethylethanolamine.		
123-30-8	p-Aminophenol.		
628-63-7, 123-	Amyl acetates.		
92–2.	A and a lands also		
71–41–0°	Amyl amino		
110–58–7 543–59–9	Amyl amine. Amyl chloride.		
110–66–7°	Amyl mercaptans.		
1322-06-1	Amyl phenol.		
62-53-3	Aniline.		
142-04-1	Aniline hydrochloride.		
29191–52–4	Anisidine.		
100–66–3	Anisole.		
118–92–3 84–65–1	Anthranilic acid. Anthraquinone.		
100–52–7	Benzaldehyde.		
55–21–0	Benzamide.		
71-43-2	Benzene.		
98–48–6	Benzenedisulfonic acid.		
98–11–3	Benzenesulfonic acid.		
134–81–6	Benzil.		
76–93–7 65–85–0	Benzilic acid. Benzoic acid.		
119–53–9	Benzoin.		
100–47–0	Benzonitrile.		
119-61-9	Benzophenone.		
98–07–7	Benzotrichloride.		
98–88–4 100–51–6	Benzoyl chloride. Benzyl alcohol.		
100–31–6	Benzylamine.		
120–51–4	Benzyl benzoate.		
100-44-7	Benzyl chloride.		
98–87–3	Benzyl dichloride.		
92–52–4	Biphenyl.		
80-05-7	Bisphenol A.		
10–86–1 27497–51–4	Bromobenzene. Bromonaphthalene.		
106–99–0	Butadiene.		
106–98–9	1-butene.		
123-86-4	n-butyl acetate.		
141–32–2	n-butyl acrylate.		
71–36–3	n-butyl alcohol.		
78–92–2 75–65–0	s-butyl alcohol. t-butyl alcohol.		
109–73–9	n-butylamine.		
13952–84–6	s-butylamine.		
75-64-9	t-butylamine.		
98-73-7	p-tert-butyl benzoic acid.		
107–88–0	1,3-butylene glycol.		
123–72–8	n-butyraldehyde.		
107–92–6 106–31–0	Butyric acid. Butyric anhydride.		
109-74-0	Butyronitrile.		
105–60–2	Caprolactam.		
75–1–50	Carbon disulfide.		
558-13-4	Carbon tetrabromide.		
56-23-5	Carbon tetrachloride.		
9004–35–7	Cellulose acetate.		
79–11–8 108–42–9	Chloroacetic acid. m-chloroaniline.		
95–51–2	o-chloroaniline.		
	p-chloroaniline.		
	•		

## **Environmental Protection Agency**

CAS No. a	Chemical	CAS No. a	Chemical
35913-09-8	Chlorobenzaldehyde.	26761–40–0	Diisodecyl phthalate.
108–90–7	Chlorobenzene.	27554–26–3	Diisooctyl phthalate.
118–91–2, 535– 80–8, 74–11–	Chlorobenzoic acid.	674–82–8 124–40–3	Diketene. Dimethylamine.
3°.		121–69–7	N,N-dimethylaniline.
2136-81-4,	Chlorobenzotrichloride.	115–10–6	N,N-dimethyl ether.
2136-89-2,		68–12–2	N,N-dimethylformamide.
5216–25–1°. 1321–03–5	Chlorobenzoyl chloride.	57–14–7 77–78–1	Dimethylhydrazine. Dimethyl sulfate.
25497–29–4	Chlorodifluoromethane.	75–18–3	Dimethyl sulfide.
75–45–6	Chlorodifluoroethane.	67–68–5	Dimethyl sulfoxide.
67–66–3	Chloroform.	120–61–6 99–34–3	Dimethyl terephthalate.
25586–43–0 88–73–3	Chloronaphthalene. o-chloronitrobenzene.	51–28–5	3,5-dinitrobenzoic acid.  Dinitrophenol.
100-00-5	p-chloronitrobenzene.	25321–14–6	Dinitrotoluene.
25167–80–0	Chlorophenols.	123–91–1	Dioxane.
126-99-8	Chloroprene. Chlorosulfonic acid.	646–06–0 122–39–4	Dioxilane. Diphenylamine.
7790–94–5 108–41–8	m-chlorotoluene.	101–84–8	Diphenyl oxide.
95–49–8	o-chlorotoluene.	102-08-9	Diphenyl thiourea.
106-43-4	p-chlorotoluene.	25265–71–8	Dipropylene glycol.
75–72–9 108–39–4	Chlorotrifluoromethane. m-cresol.	25378–22–7 28675–17–4	Dodecene. Dodecylaniline.
95–48–7	o-cresol.	27193–86–8	Dodecylphenol.
106–44–5	p-cresol.	106-89-8	Epichlorohydrin.
1319–77–3	Mixed cresols.	64–17–5	Ethanol.
1319–77–3 4170–30–0	Cresylic acid. Crotonaldehyde.	141–43–5° 141–78–6	Ethanolamines. Ethyl acetate.
3724–65–0	Crotonic acid.	141–97–9	Ethyl acetoacetate.
98–82–8	Cumene.	140-88-5	Ethyl acrylate.
80–15–9	Cumene hydroperoxide.	75–04–7	Ethylamine.
372–09–8 506–77–4	Cyanoacetic acid. Cyanogen chloride.	100–41–4 74–96–4	Ethylbenzene. Ethyl bromide.
108–80–5	Cyanuric acid.	9004–57–3	Ethylcellulose.
108–77–0	Cyanuric chloride.	75-00-3	Ethyl chloride.
110-82-7	Cyclohexane. Cyclohexanol.	105–39–5	Ethyl chloroacetate.
108–93–0 108–94–1	Cyclohexanone.	105–56–6 74–85–1	Ethylcyanoacetate. Ethylene.
110–83–8	Cyclohexene.	96–49–1	Ethylene carbonate.
108–91–8	Cyclohexylamine.	107-07-3	Ethylene chlorohydrin.
111–78–4	Cyclooctadiene.	107–15–3	Ethylenediamine.
112–30–1 123–42–2	Decanol. Diacetone alcohol.	106–93–4 107–21–1	Ethylene dibromide. Ethylene glycol.
27576–04–1	Diaminobenzoic acid.	111–55–7	Ethylene glycol diacetate.
95–76–1, 95–82–	Dichloroaniline.	110–71–4	Ethylene glycol dimethyl ether.
9, 554–00–7, 608–27–5,		111–76–2 112–07–2	Ethylene glycol monobutyl ether.
608–31–1,		110-80-5	Ethylene glycol monobutyl ether acetate. Ethylene glycol monoethyl ether.
626–43–7,		111–15–9	Ethylene glycol monethyl ether acetate.
27134–27–6,		109-86-4	Ethylene glycol monomethyl ether.
57311–92–9°. 541–73–1	m-dichlorobenzene.	110–49–6	Ethylene glycol monomethyl ether ace- tate.
95–50–1	o-dichlorobenzene.	122-99-6	Ethylene glycol monophenyl ether.
106–46–7	p-dichlorobenzene.	2807-30-9	Ethylene glycol monopropyl ether.
75–71–8	Dichlorodifluoromethane.	75–21–8	Ethylene oxide.
111–44–4 107–06–2	Dichloroethyl ether. 1,2-dichloroethane (EDC).	60–29–7 104–76–7	Ethyl ether 2-ethylhexanol.
96–23–1	Dichlorohydrin.	122–51–0	Ethyl orthoformate.
26952–23–8	Dichloropropene.	95-92-1	Ethyl oxalate.
101–83–7	Dicyclohexylamine.	41892–71–1	Ethyl sodium oxalacetate.
109–89–7 111–46–6	Diethylamine. Diethylene glycol.	50–00–0 75–12–7	Formaldehyde. Formamide.
112–36–7	Diethylene glycol diethyl ether.	64–18–6	Formic acid.
111–96–6	Diethylene glycol dimethyl ether.	110-17-8	Fumaric acid.
112–34–5	Diethylene glycol monobutyl ether.	98–01–1	Furfural.
124–17–4	Diethylene glycol monobutyl ether ace tate.	- 56–81–5 26545–73–7	Glycerol. Glycerol dichlorohydrin.
111–90–0	Diethylene glycol monoethyl ether.	25791–96–2	Glycerol triether.
111-90-0	Diethylene glycol monoethyl ether ace	- 56–40–6	Glycine.
	Didniyidile giyedi ilidiledaliyi dalar ded		
112–15–2	tate.	107–22–2	Glyoxal.
112–15–2 111–77–3	tate. Diethylene glycol monomethyl ether.	118–74–1	Hexachlorobenzene.
	tate.		

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CAS No. a	Chemical		CAS No. a	Chemical
629–11–8	Hexamethylene glycol.		115–77–5	Pentaerythritol.
100–97–0	Hexamethylenetetramine.		109-66-0	n-pentane.
74–90–8	Hydrogen cyanide.		109–67–1 127–18–4	1-pentene
123–31–9 99–96–7	Hydroquinone. p-hydroxybenzoic acid.		594–42–3	Perchloroethylene. Perchloromethyl mercaptan.
26760–64–5	Isoamylene.		94–70–2	o-phenetidine.
78–83–1	Isobutanol.		156–43–4	p-phenetidine.
110–19–0	Isobutyl acetate.		108–95–2	Phenol.
115-11-7	Isobutylene.		98-67-9, 585-	Phenolsulfonic acids.
78-84-2	Isobutyraldehyde.		38-6, 609-46-	
79–31–2	Isobutyric acid.		1, 1333–39–7°.	
25339–17–7	Isodecanol.		91–40–7	Phenyl anthranilic acid.
26952–21–6	Isooctyl alcohol.		( <sup>b</sup> ) 75–44–5	Phenylenediamine.
78–78–4 78–59–1	Isopentane. Isophorone.		85–44–9	Phosgene. Phthalic anhydride.
121–91–5	Isophthalic acid.		85–41–6	Phthalimide.
78–79–5	Isoprene.		108–99–6	b-picoline.
67–63–0	Isopropanol.		110-85-0	Piperazine.
108-21-4	Isopropyl acetate.		9003-29-6,	Polybutenes.
75–31–0	Isopropylamine.		25036-29-7c.	
75–29–6	Isopropyl chloride.		25322-68-3	Polyethylene glycol.
25168-06-3	Isopropylphenol.		25322–69–4	Polypropylene glycol.
463–51–4	Ketene.		123–38–6	Propionaldehyde.
(b) 123–01–3	Linear alkyl sulfonate. Linear alkylbenzene	(linear	79–09–4 71–23–8	Propionic acid. n-propyl alcohol.
120-01-0	dodecylbenzene).	(III ICAI	107–10–8	Propylamine.
110–16–7	Maleic acid.		540-54-5	Propyl chloride.
108–31–6	Maleic anhydride.		115-07-1	Propylene.
6915-15-7	Malic acid.		127-00-4	Propylene chlorohydrin.
141-79-7	Mesityl oxide.		78-87-5	Propylene dichloride.
121–47–1	Metanilic acid.		57-55-6	Propylene glycol.
79–41–4	Methacrylic acid.		75–56–9	Propylene oxide.
563–47–3	Methallyl chloride.		110-86-1	Pyridine.
67–56–1	Methyl costate		106-51-4	Quinone.
79–20–9 105–45–3	Methyl acetate. Methyl acetoacetate.		108–46–3 27138–57–4	Resorcinol. Resorcylic acid.
74–89–5	Methylamine.		69–72–7	Salicylic acid.
100–61–8	n-methylaniline.		127–09–3	Sodium acetate.
74-83-9	Methyl bromide.		532-32-1	Sodium benzoate.
37365-71-2	Methyl butynol.		9004-32-4	Sodium carboxymethyl cellulose.
74–87–3	Methyl chloride.		3926-62-3	Sodium chloroacetate.
108–87–2	Methylcyclohexane.		141–53–7	Sodium formate.
1331–22–2	Methylcyclohexanone.		139-02-6	Sodium phenate.
75-09-2	Methylene chloride.		110-44-1	Sorbic acid.
101–77–9 101–68–8	Methylene dianiline. Methylene diphenyl diisocyanate.		100–42–5 110–15–6	Styrene. Succinic acid.
78–93–3	Methyl ethyl ketone.		110–13–0	Succinonitrile.
107–31–3	Methyl formate.		121–57–3	Sulfanilic acid.
108–11–2	Methyl isobutyl carbinol.		126-33-0	Sulfolane.
108-10-1	Methyl isobutyl ketone.		1401-55-4	Tannic acid.
80-62-6	Methyl methacrylate.		100-21-0	Terephthalic acid.
77–75–8	Methylpentynol.		79–34–5°	Tetrachloroethanes.
98–83–9	a-methylstyrene.		117–08–8	Tetrachlorophthalic anhydride.
110–91–8 85–47–2	Morpholine.		78–00–2 119–64–2	Tetraethyl lead.
120–18–3	a-naphthalene sulfonic acid. b-naphthalene sulfonic acid.		85–43–8	Tetrahydronaphthalic aphydrida
90–15–3	a-naphthol.		75–74–1	Tetrahydrophthalic anhydride. Tetramethyl lead.
135–19–3	b-naphthol.		110–60–1	Tetramethylenediamine.
75–98–9	Neopentanoic acid.		110–18–9	Tetramethylethylenediamine.
88-74-4	o-nitroaniline.		108-88-3	Toluene.
100-01-6	p-nitroaniline.		95–80–7	Toluene-2,4-diamine.
91–23–6	o-nitroanisole.		584-84-9	Toluene-2,4-diisocyanate.
100–17–4	p-nitroanisole.		26471–62–5	Toluene diisocyanates (mixture).
98–95–3	Nitrobenzene.		1333-07-9	Toluenesulfonamide.
27178–83–2° 79–24–3	Nitrobenzoic acid (o,m, and p). Nitroethane.		104–15–4° 98–59–9	Toluenesulfonic acids. Toluenesulfonyl chloride.
79–24–3 75–52–5	Nitroethane.		26915–12–8	Toluenesulfonyl chloride. Toluidines.
88–75–5	2-Nitrophenol.		87–61–6, 108–	Trichlorobenzenes.
25322-01-4	Nitropropane.		70–3, 120–82–	
1321–12–6	Nitrotoluene.		1°.	
27215-95-8	Nonene.		71–55–6	1,1,1-trichloroethane.
25154-52-3	Nonylphenol.		79-00-5	1,1,2-trichloroethane.
27193–28–8	Octylphenol.		79–01–6	Trichloroethylene.
123–63–7	Paraldehyde.		75–69–4	Trichlorofluoromethane.

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CAS No. a	Chemical
96–18–4	1,2,3-trichloropropane.
76-13-1	1,1,2-trichloro-1,2,2-trifluoroethane.
121-44-8	Triethylamine.
112-27-6	Triethylene glycol.
112-49-2	Triethylene glycol dimethyl ether.
7756-94-7	Triisobutylene.
75-50-3	Trimethylamine.
57-13-6	Urea.
108-05-4	Vinyl acetate.
75-01-4	Vinyl chloride.
75-35-4	Vinylidene chloride.
25013-15-4	Vinyl toluene.
1330-20-7	Xylenes (mixed).
95-47-6	o-xylene.
106-42-3	p-xylene.
1300-71-6	Xylenol.
1300-73-8	Xylidine.

<sup>a</sup>CAS numbers refer to the Chemical Abstracts Registry numbers assigned to specific chemicals, isomers, or mixtures of chemicals. Some isomers or mixtures that are covered by the standards do not have CAS numbers assigned to them. The standards apply to all of the chemicals listed, whether CAS numbers have been assigned or not.

bNo CAS number(s) have been assigned to this chemical,

its isomers, or mixtures containing these chemicals. 
°CAS numbers for some of the isomers are listed; the standards apply to all of the isomers and mixtures, even if CAS numbers have not been assigned.

[48 FR 48335, Oct. 18, 1983, as amended at 65 FR 61763, Oct. 17, 2000]

Subpart VVa—Standards of Per-Equipment formance for Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006

Source: 72 FR 64883, Nov. 16, 2007, unless otherwise noted.

#### §60.480a Applicability and designation of affected facility.

(a)(1) The provisions of this subpart apply to affected facilities in the synthetic organic chemicals manufacturing industry.

- (2) The group of all equipment (defined in §60.481a) within a process unit is an affected facility.
- (b) Any affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after November 7, 2006, shall be subject to the requirements of this subpart.
- (c) Addition or replacement of equipment for the purpose of process improvement which is accomplished without a capital expenditure shall not by

itself be considered a modification under this subpart.

- (d)(1) If an owner or operator applies for one or more of the exemptions in this paragraph, then the owner or operator shall maintain records as required in §60.486a(i).
- (2) Any affected facility that has the design capacity to produce less than  $1,000~\mathrm{Mg/yr}$  ( $1,102~\mathrm{ton/yr}$ ) of a chemical listed in §60.489 is exempt from §§ 60.482-1a through 60.482-11a.
- (3) If an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from §§ 60.482-1a through 60.482-11a.
- (4) Any affected facility that produces beverage alcohol is exempt from §§ 60.482–1a through 60.482–11a.
- (5) Any affected facility that has no equipment in volatile organic compounds (VOC) service is exempt from §§ 60.482-1a through 60.482-11a.
- (e) Alternative means of compliance—(1) Option to comply with part 65. (i) Owners or operators may choose to comply with the provisions of 40 CFR part 65, subpart F, to satisfy the requirements of §§ 60.482–1a through 60.487a for an affected facility. When choosing to comply with 40 CFR part 65, subpart F, the requirements of §§ 60.485a(d), (e), and (f), and 60.486a(i) and (j) still apply. Other provisions applying to an owner or operator who chooses to comply with 40 CFR part 65 are provided in 40 CFR 65.1.
- (ii) Part 60, subpart A. Owners or operators who choose to comply with 40 CFR part 65, subpart F must also comply with §§ 60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for that equipment. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(1)(ii) do not apply to owners or operators of equipment subject to this subpart complying with 40 CFR part 65, subpart F, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart F, must comply with 40 CFR part 65, subpart A.
- (2) Part 63, subpart H. (i) Owners or operators may choose to comply with the provisions of 40 CFR part 63, subpart H, to satisfy the requirements of